

Monitoring of Lesser White-fronted Geese in western Estonia in 1999

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1. Introduction

An important spring staging area for Lesser White-fronted Geese (*Anser erythropus*, later LWfG) was revealed at Matsalu Bay, western Estonia, in 1996, and a minimum of 32 LWfG were seen in the area in April–May 1998 (Tolvanen 1999) without systematic searching. In spring 1999, the first organised monitoring of LWfG in western Estonia covered the period 23 April – 11 May. The work was carried out by volunteers of the Finnish WWF LWfG project, in co-operation with Estonian ornithologists. In autumn 1999, a small-scale survey trip to the same area was made in order to check for possible autumn staging LWfG.

2. Methods and weather conditions

The main aims of the spring monitoring in western Estonia are to:

- reveal the numbers and age ratio of LWfG staging in the area (identifying individually as many as possible)
- localise the most important feeding and roosting areas for LWfG
- assess possible threats for LWfG in the area during the staging period
- collect data for the research on the migration routes of the Fennoscandian wild LWfG population, especially by recording the individual belly patches of adult individuals

The spring monitoring started 23 April, and lasted until 10 May. Altogether 16 persons took part in the work (Table 1), and all the potential feeding and roosting areas around the Matsalu Bay were checked several times, and the core area for LWfG (the fields and coastal meadows of Haeska) were monitored daily (see Table 1, Figure 1). During four days, a survey was carried out also in the Noarootsi Peninsula north of Matsalu. After the 17 days of monitoring in the Matsalu area, a one day survey trip was made in the Pärnu region in south-western Estonia. In addition, observations were received from other Finnish ornithologists birding in the area.

The geese were mainly observed from birdwatching towers and from field roads. When possible, the LWfG were recorded on videotape by a combination of a telescope (Leica Apo-Televid) and digital video camera (Canon MV-10); altogether 25 individuals were recorded.

In the second half of April the weather was very warm (with prevailing S – SE winds and daily maximum temperatures up to +21°C), but turned much colder in the end of April. During the first two weeks of May, there was frost in most nights and daily maximum temperatures varied between +3° and +10°C. On 9 May, it was snowing heavily the whole day, and in the morning of 10 May there was 10 cm snow on the ground in the Matsalu area.

During 17–21 September, a group of Finnish and Estonian ornithologists (Risto Karvonen, Maire Toming, Juha Markkola and Aleksei Lotman) made a short survey trip to western Estonia to search for LWfG. On 17 September, the fields at Taebala, Noarootsi, Ridala and Martna in north-western Estonia were checked; on 18 September, the coastal meadows and fields around Pärnu, Varbla (Saulepi meadow), Tõstamaa (Värati meadow) and the Audru fields were visited. During 19–20 September, surveys were carried out in the Lihula area and at Kloostri, and on 21 September, the Martna fields were checked once again.

3. Results of the spring monitoring

A total of 43–51 LWfG were observed during the monitoring period. The lowest number is a minimum, but more probably the real number of observed individuals was closer to 50. The exact number was not possible to determine, because only c. half of the individuals were individually identified and recorded on video.

The first LWfG (groups of 2 + 12 individuals) were seen already the first day, 24 April. The highest direct count at one place was 43 individuals at Haeska on 26 April (with 3 more possibly different

Table 1. Schedule of LWfG monitoring in western Estonia in spring 1999 (see also Figure 1). Abbreviations of the observers: José Luis Copete (JLC), Heikki Holmström (HH), Risto Karvonen (RK), Aura Koivisto (AK), Pekka Komi (PK), Katriina Könönen (KK), Aivar Leito (AL), Mauri Leivo (MLe), Mariko Lindgren (MLi), Juha Markkola (JM), Ivar Ojaste (IO), Jorma Pessa (JP), Petro Pynnönen (PP), Risto Sauso (RS), Petteri Tolvanen (PT), Maire Toming (MT), Vello Vichterpal (VV). Column 2 (Matsalu Bay W) includes the north-western coast of the Matsalu Bay between Puise and Saardo; column 3 (Matsalu Bay E) includes the eastern parts of the Matsalu Bay, including Kasari and Kloostri; column 4 (Matsalu Bay S) includes the southern coast of the Matsalu Bay from Matsalu to Saastna; column 5 (Inland fields) includes the fields N and NE of Haeska, e.g. the fields at Ridala, Tagavere and Martna; column 7 (SW Estonia) includes the Pärnu region.

| Date | Haeska | Matsalu Bay W | Matsalu Bay E | Matsalu Bay S | Inland fields | Noarootsi Peninsula | SW Estonia | Observers |
|--------|--------|---------------|---------------|---------------|---------------|---------------------|------------|---------------------------------|
| 24 Apr | x | x | | | x | | | PT, MLi |
| 25 Apr | x | | x | | x | | | RK, HH, JP, JM, AL, MT, PT, MLi |
| 26 Apr | x | x | x | x | x | | | RK, HH, AL, JP, JM, MT, PK |
| 27 Apr | x | | | | | | | RK, HH, AL, JP, JM, MT |
| 28 Apr | x | | x | x | | | | RK, HH, AL, MT, PK |
| 29 Apr | x | | x | x | | | | RK, HH, AL, MT, IO, PK |
| 30 Apr | x | | | | x | | | RK, HH, MT, MLe |
| 1 May | x | | | | x | | | RK, HH, AL, MT, MLe, VV |
| 2 May | x | | | | x | x | | RK, HH, MT, PP, JLC, KK |
| 3 May | x | | | | | | | PP, JLC, KK |
| 4 May | x | | | | | x | | PP, JLC |
| 5 May | x | x | | x | | | | PP, JLC |
| 6 May | x | x | | | x | | | PP, JLC |
| 7 May | x | x | | | x | | | PP, JLC |
| 8 May | x | | | | x | x | | PP, JLC |
| 9 May | x | x | | | | x | | PP, JLC |
| 10 May | x | | | | | | | PP, JLC |
| 11 May | | | | | | | x | PP, JLC |

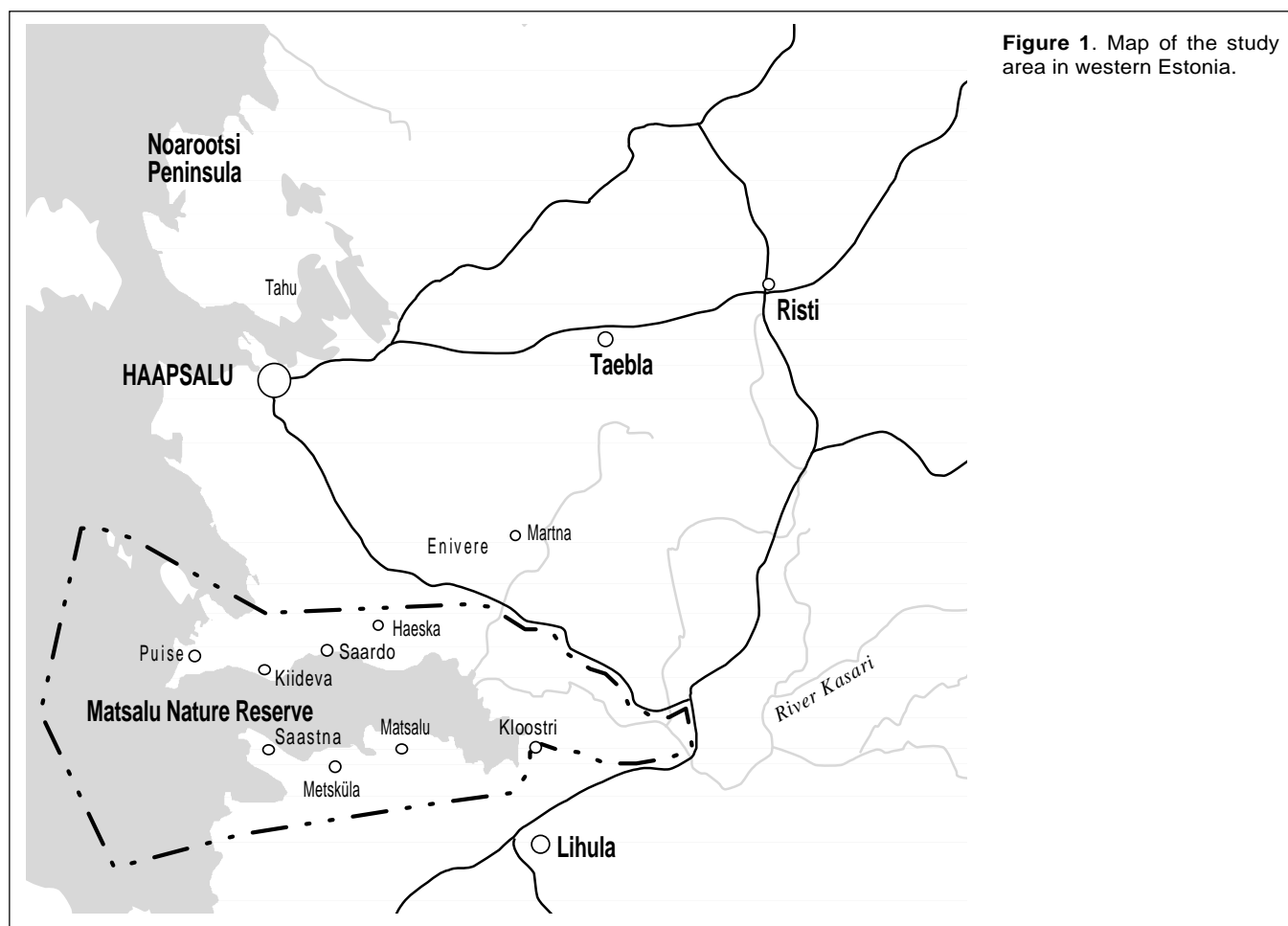


Figure 1. Map of the study area in western Estonia.

individuals seen at Kiideva and at the south coast of Matsalu Bay), which was the peak day during the monitoring period. Most of the observations of LWfG were from the Haeska area, but scattered observations were made in a relatively large area around the Matsalu Bay: in the Martna fields (Enivere, Ehmja, Putkaste), Kiideva (flying birds), Saardo fields, Metsküla coastal meadow, Tagavere (flying birds) and Tahu coastal meadows. A summary of all LWfG observations are shown in Table 2. Most of the individuals were adults (older than 2nd calendar-year), and only three 2nd calendar-year birds were identified. The results of the comparison of the video material from Estonia, the Bothnian Bay coast and the Valdaik Marshes (Porsangen Fjord, northern Norway) are reported in a separate article (see Aarvak et al. 2000, pp. 24–27 in this report);

The flock of c. 22 LWfG, which was feeding daily on the eastern side of Haeska birdwatching tower in the period 24 April – 1 May, did not use this area during 2–4 May, but was seen there again 5–6 May. Most probably the flock continued the migration towards north after 6 May, because they were not found after that date despite active searching. When the flock was not feeding in the fields of Haeska, it most probably stayed in other parts of the Matsalu Bay coast at daytime. On one occasion, the flock was seen landing at the Saardo fields (c. 3 km west of Haeska) – this area is not used for grain-growing, but is a pasture for cattle. Excrements of geese were found on these quite small fields.

During daytime, several hundreds of *Anser* geese were roosting in flocks on the water. They could be seen from Haeska by telescope, but species identification of these flocks was impossible. In addition to the LWfG flocks of wild origin, one adult LWfG with Swedish colour-rings was observed in a big flock of Barnacle Geese (*Branta leucopsis*) at Haeska, at the base of Puise Peninsula and at Martna (see Table 2). The last observation (of one LWfG) was made 20 May in Haeska (Estonian Birding Society/ I. Ojaste, J. Pulli, T. Aartolahti).

In the end of April and on the first days of May (when the big flock was present), the daily movements of LWfG seemed to be quite

well defined: They spent early morning hours grazing on the fields (especially on the fields at Haeska), flew in the forenoon to the coastal meadows of Haeska, turned back to the fields in the evening and then they flew to Haeska (Matsalu Bay coast) to roost overnight. When feeding on the fields, LWfG mostly preferred green hay fields and hay-growing pastures. On the coastal meadows, LWfG were mostly feeding in the low-growth (grazed by cattle) green parts of large, open meadow areas. Inside the Matsalu Nature Reserve (established in 1957), there was very little disturbance of the geese during the monitoring period. In some single cases, the geese were scared away (or did not land) because of birdwatchers and/or photographers.

4. Results of the autumn survey

In September 1999, LWfG were seen in one occasion: in the morning 19 September 3 + 1 adult birds were observed together with some White-fronted (*Anser albifrons*), Bean (*A. fabalis*) and Barnacle Geese in a flock of c. 1000 Greylag Geese (*A. anser*) at the Pagasi fields (Kloostri, E parts of the Matsalu Nature Reserve). The origin of these four LWfG could not be identified e.g. by possible rings; they could have been either wild or Swedish re-introduced birds. In the evening of 20 September, voices of LWfG were heard from a mixed flock of Greylags, Bean Geese, White-fronts and 5–7 unidentified white-fronted geese (*A. erythropus/albifrons*).

On 15 October 1999, two more observations of LWfG were reported from Estonia: at cape Pöösaspea (Läänemaa): 1 individual migrating in a flock of White-fronted and Barnacle Geese, and at Risti (Läänemaa), 5 individuals migrating in a flock of White-fronted and Bean Geese (Ivar Ojaste, pers.comm.). The Estonian Rarities Committee has rejected LWfG from the list of species for which observations should be considered by the Rarities Committee, and only records from 1997 or before will be considered (Lilleleht 1999).



Photo. A view of the Haeska coastal meadows, western Estonia, April 1999. © Petteri Tolvanen

Table 2. Summary of LWfG observations during the spring monitoring. For abbreviations of the observers, see Table 1. Other abbreviations: ad = adult, 2cy = 2nd-calendar-year, Aalb = White-fronted Goose (*Anser albifrons*), Bleu = Barnacle Goose (*Branta leucopsis*)

| Date | Place and habitat (and time) | No of ind. | Comments | Observers |
|--------|--|------------|--|-----------------------------|
| 24 Apr | Haeska, coastal meadows (10:50–11:30) | 2 | ad pair, swimming | PT, MLI, AK, RS |
| 24 Apr | Martna, Enivere, feeding on a hay-growing pasture with Aalb and Bleu (20:15–21:50) | 12 | left towards Haeska after sunset | PT, MLI |
| 25 Apr | Haeska, grazing on coastal meadows (15:30–18:35) | 23 | in a pure flock | RK, HH, AL, IO, JP, JM etc. |
| 25 Apr | Haeska, a flying flock came from N and flew with other geese towards NNW | 16 | in another pure flock, arrived from N | RK, HH, AL, IO, JP, JM etc. |
| 25 Apr | Martna, Ehmja, grazing on fields (in the evening) | 4 | total number in 25 Apr: 43 ind. | RK, JP, JM |
| 26 Apr | Kiideva, flying SE with Aalb 2 (07:45) | 2 | | AL |
| 26 Apr | Haeska, coastal meadows (in the afternoon) | 43 | a flock of 20 ad + 1 2cy, another flock of 22 | HH, RK, AK, AL, RS, PK |
| 26 Apr | between Saastna and Metsküla, grazing on coastal meadows in a flock of Bleu | 1 | ad, probably not a wild ind. | JP, JM, MT, A.Lotman |
| 27 Apr | Haeska fields, came flying from seashore with Aalb and Bleu (05:45–06:15) | 21 | same flock as in previous days | AL, PK |
| 27 Apr | Haeska, coastal meadows, maximum count (10:15–20:40) | 24 | at least flocks of 22 + 2 individuals | HH, RK, AL |
| 28 Apr | Haeska fields, grazing with Aalb 1 (05:45–09:00) | 19 | same flock as in previous days | HH, RK, AL, MT |
| 28 Apr | Haeska, coastal meadows; maximum count (11:10–16:30) | 21 | probably including the 19 ind. seen in the morning on the fields; a flying flock of LWfG disturbed by a photographer | HH, RK, AL, MT, PK |
| 29 Apr | Haeska fields, grazing with Aalb 1 (05:50) | 22 | same flock as in previous days | HH, RK, AL, MT, PK |
| 29 Apr | Haeska, coastal meadows; maximum count (07:00–14:30) | 22 | same flock as in previous days | HH, RK, AL, MT |
| 30 Apr | Haeska, coastal meadows, grazing in a big flock of Bleu | 1 | with Swedish colour-rings (= not a wild bird) | MLe |
| 30 Apr | Haeska, coastal meadows; maximum count (05:50–17:15) | 20 | not including the colour-ringed individual | HH, RK, MLe, MT |
| 30 Apr | Tagavere, N of kolkhoz, flying to NW towards the fields of Uugla with Aalb 4 | 2 | | HH, RK, MT |
| 1 May | Haeska, coastal meadows; maximum count (13:30–21:30) | 20 | same flock as in previous days | HH, RK, MT, VV |
| 2 May | Noarootsi, Tahu coastal meadows (10:35–12:30 and 14.30–18.00) | 4 | 2 ad pairs; probably not seen at Haeska at all | HH, RK, MT |
| 5 May | base of Puise peninsula, in a big flock of Bleu | 1 | with Swedish colour-rings (= not a wild bird) | PP, JLC |
| 5 May | Haeska, coastal meadows; maximum count (9:30–11:30) | 21 | same flock as in previous days | PP, JLC |
| 6 May | Haeska, coastal meadows; maximum count; the flock took off and landed in Saardo fields | 22 | probable LWfG, probably the same flock as in previous days | PP, JLC |
| 7 May | Saardo; a flying flock tried to land at the fields but were scared because of the observers and flew to Haeska | 4 | 2 ad with 2 2cy birds | PP, JLC |
| 8 May | Martna, Putkaste, grazing in a big flock of Bleu | 1 | with Swedish colour-rings (= not a wild bird) | PP, JLC |

5. Discussion

As suggested already before the start of the LWfG monitoring, the surroundings of the Matsalu Bay are definitely a very important spring stop-over site for the Fennoscandian LWfG population. In spring 1999, the total number of LWfG staging in western Estonia was considerably higher as compared with the number of LWfG staging on the Bothnian Bay coast (Timonen 2000, pp. 22–23 in this report) and close to the number counted at the Valdak Marshes (Aarvak & Øien 2000, pp. 24–27 in this report).

The preliminary results of the analyses of the video material (see Aarvak et al. 2000, pp. 32–33 in this report) and colour ring observations (Aarvak et al. 1999) have shown, that at least the main part of LWfG staging in the area belongs to the Fennoscandian population. A major part, if not all, of the birds staging in western Estonia in April–May, stage later in spring also on the Bothnian Bay coast and/or at the Valdak Marshes. The peak number of staging LWfG was noted in the end of April, while on the Bothnian Bay coast the peak was in the period 16–19 May (Timonen 2000, pp. 22–23 in this report) and at the Valdak Marshes between 22 and 25 May (Aarvak & Øien 2000, pp. 24–27 in this report). More research is needed to confirm the importance of western Estonia as an autumn staging area for LWfG, but the results of the 5-days survey trip in September 1999 suggested that the Matsalu area is also a propable autumn stop-over for LWfG.

However, as shown by the observations this year, and also reported e.g. by Pehlak & Lilleleht (1998) and Lilleleht and Leibak (1991), some individuals of reintroduced Swedish origin also use the area for staging. The birds of Swedish reintroduction origin, however, usually occur in the big flocks of Barnacle Geese – which are used as foster parents for them in the reintroduction – and do not seem to mix with the flocks of wild LWfG even when they stage at the same localities.

Clearly, Estonia should be included in the next review of the Action Plan for LWfG conservation (see Madsen 1996) as an important staging area along the migration route of the Fennoscandian population, and annual population monitoring should be given high priority. The coastal meadows of Haeska are included in the highest priority class in the management plan of the coastal meadows of the Matsalu Nature Reserve, and the meadows have been managed by grazing ever since they were lifted up from the sea. At present, the grazing on the meadows is much less intensive than in former times, and two-three times more intensive grazing would be needed to prevent over-growing of the valuable meadows (Leibak & Lutsar 1996).

6. Acknowledgements

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